SCAD

Learning Management System



IA Redesign

Process Book

IACT 731-01 | Prof. Sung Park Brieana Nestler | Wenting Zhu



Brieana Nestler Researcher & Communication Lead



Wenting Zhu Researcher & Visual Lead



MEET THE TEAM

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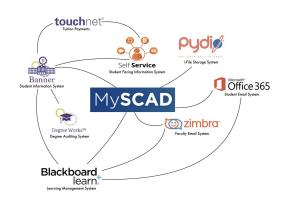
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EXECUTIVE SUMMARY

The current E-Learning environment has students and faculty inundated with a multitude of systems complexly interconnected frustrating users trying to complete everyday tasks.

At the Savannah College of Art and Design, MySCAD serves as a portal to access all the necessary functions to facilitate learning, but with over 100s of labels and no hierarchy, students experienced information overload.







One Place to Do Everything

Through extensive research and prototyping these labels have now been narrowed and grouped to just 33, creating one **centralized** place to do everything you need.

14,000

With 14,000 students, there are quadrillions of possibilities for a truly **customized** homepage to suit each individual user's specific needs.



3 Clicks to Access Everywhere

Quick access to priority functions increasing efficiency. Students can upload assignments, pay tuition, or schedule an advising appointment in 3 clicks or less.

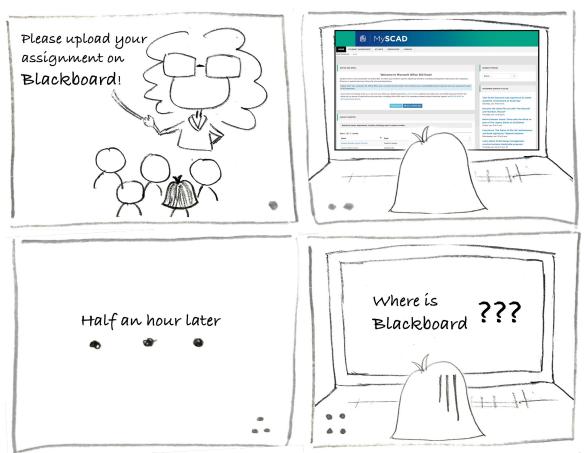
DESIGN INSPIRATION

Part **1**



Storyboard 01

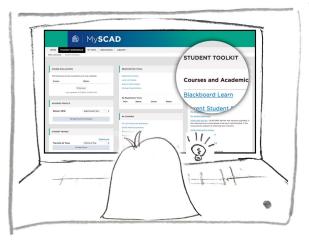
Design Inspiration



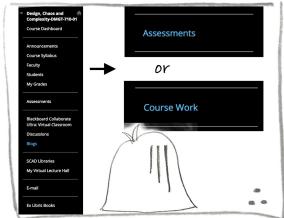


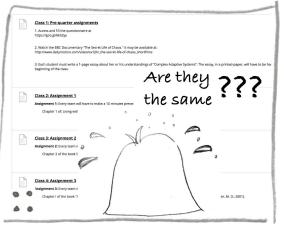
Storyboard 02

Design Inspiration











Storyboard 03

Design Inspiration









WHY WHY WHY

RESEARCH

2.1 Secondary Research2.2 Primary Research2.3 Heuristic Evaluation & Task Analysis

2.4 Card Sorting





2.1 SECONDARY RESEARCH



What is an LMS?

"Learning platforms', ... combine a range of course or subject management and pedagogical tools to provide a means of designing, building and delivering online learning environments."

Highly commercialized after being initially created by universities (Coates, et. al. 2005)

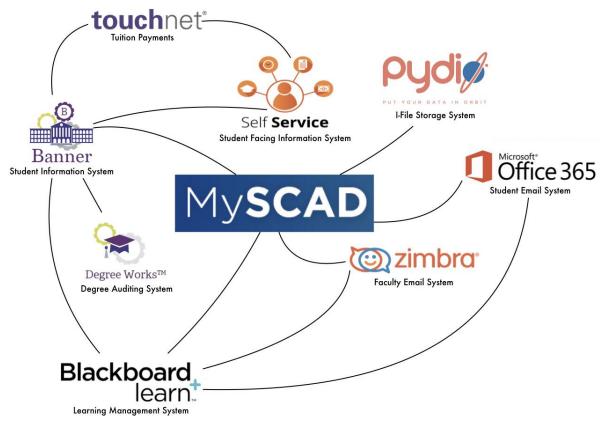


Why do we use an LMS?

6 Drivers that lead to the widespread adoption of LMS

- 1. Increase Instructional Efficiency
- "Enriched" Student Learning
- 3. New Student Expectations
- 4. Pressure to conform to Other Universities
- 5. Increase Educational Accessibility
- 6. Instructional Control and Regulation

(Coates, et. al. 2005)







Competitor Analysis

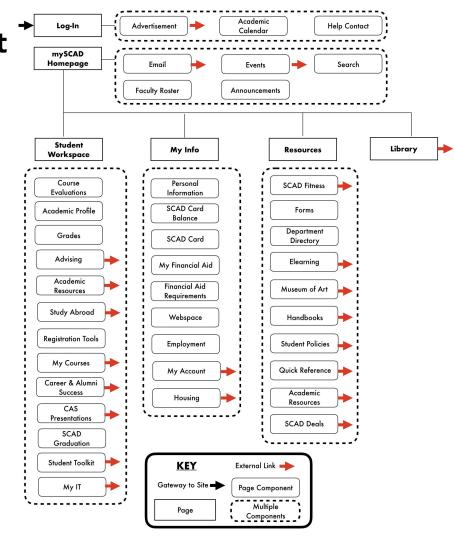
	On Scale 1 to 5	Google Drive	Google Classroom	ριαzza	canvas	D2L DESIREZLEARN
	Hierarchy	4	3	3	5	3
	Navigation	5	5	5	5	4
	Minimalist Design	5	5	5	5	4
	Consistency	5	5	4	4	5
	Labelling	4	4	5	5	4



Higher Level Blueprint

This blueprint of mySCAD allows us to gain a deeper understanding of the Information Architecture as it stands currently.

Under each of the categories there are 9 or more page components, majority of these leading to external websites.

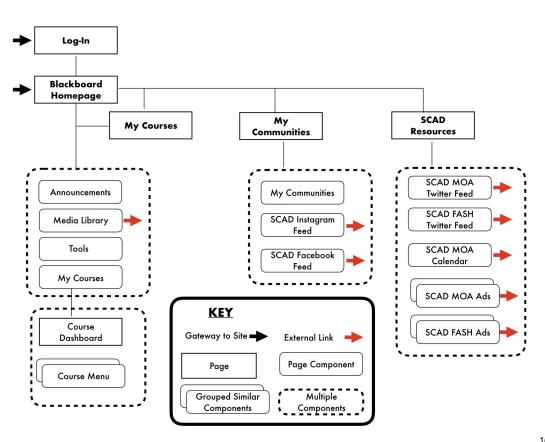




Higher Level Blueprint

While the Blackboard blueprint appears more simple than that of mySCAD, this does not break down each individual courses menu or dashboard.

Now that the systems were broken down, we surveyed students to understand what tasks they needed to access most frequently within these blueprints.





2.2 PRIMARY RESEARCH



Competitor Analysis

Eliminating Blackboard completely is a possible solution to many of the usability issues.

Through our research, many students and faculty use Blackboard for the bare minimum requirements, while some circumnavigate the LMS completely opting to use outside softwares and tools.

"Cornell University will be switching from Blackboard to Canvas, leaving Princeton University the only Ivy League university still using Blackboard... After piloting three different systems -- Canvas, Brightspace [D2L] and a new version of Blackboard Learn called Blackboard Ultra over a single semester [it was] concluded that 'Canvas seemed the platform that faculty and students preferred." (McKenzie, 2018)



Questionnaire

We created a questionnaire to gain an understanding of the basics like how often students use the systems, the main tasks for students, and overall rating.

We received **48 responses**.

We are a group of SCAD students working on a project Please spare us THREE minutes to fill out this survey,	
Currently I am a?	
Undergraduate Graduate	
Section 1: Blackboard	Section 2: MySCAD
1. How often do you use Blackboard?(per week)	1. How often do you use MySCAD?(per week)
☐ 7 times or more	☐ 7 times or more
☐ 4-6 times	☐ 4-6 times
☐ 1-3 times	☐ 1-3 times
□ Never	□ Never
2. What do you usually do in Blackboard?(choose	2. What do you usually do in MySCAD? (choose 1-
1-3)	☐ Go to Blackboard
□ Upload assignment	☐ Account Information
☐ Group Work	☐ Use Library
☐ Check grades	☐ Search Materials
☐ Document Filing	☐ Select Courses/Study Plan
☐ Tracking/Analytics	☐ Payment (Tuition & Meal plan)
☐ Syllabus/Announcement	☐ Find events
☐ Other:	☐ Other:
3. Do you use Blackboard mobile app?	3. Do you use MySCAD app more than website?
□ Yes	□ Yes
□ No	□ No
□ Sometimes	☐ Equally
4. How would you rate your overall experience	4. How would you rate your overall experience
using Blackboard ?	using MySCAD?
1 2 3 4 5	1 2 3 4 5
Negative O O O O Positive	Negative O O O O Positive
5. Can you would use a word or phrase to describe Blackboard?	5. Can you would use a word or phrase to describe MySCAD?
Section 3: Other Study Tools	3. Which one do you prefer, Blackboard or the tool
1. What tools do you use to support your study?	you choose in last question?
☐ Google Drive	□ Blackboard
□ WhatsApp	☐ The tools I choose
□ Facebook	□ Equal
☐ Other:	☐ I'm not sure.
2. What do you usually use these tools for?	Age:
☐ Share Materials	Gender:
☐ Collaboration	Major:
☐ Communication	
□ Other:	-ENI

MySCAD

3.3/5.0

Top 3 Functions

Go to Blackboard			85.47%
Register Classes/Study Pla	70.839	%	
Payment	47.92%		



Blackboard

3.2/5.0

Top 3 Functions

Check Grades		
Syllabus/Announcement	83.33%	
Upload Assignment	79.17%	

Other Tools

Google Drive			95.	83%
WhatsApp		35.58%		
Facebook 22.92%				
Messenger, iFile, Youtube, Books (2.08%)				

72%

Prefer other tools for **Sharing Materials Collaboration Communication**



Next we interviewed 4 Faculty members and conducted observations and interviews with 2 students, the following are direct quotes.





Faculty Interviews



- "Blackboard is sh*t"
- "Blackboard is confusing, you need time to figure out what is going on"
- "Too many options to create an assignment, it wastes so much time, we want efficiency"
- On using Blackboard the first time "I was terrified, it's awful and ugly"
- On moving to Google Drive "So far I'm very happy with it"
- "Gradebook isn't bad"



- "There are so many things, it's **overwhelming**."
- "I have to CTRL+F a lot to find what I'm looking for"
- "The content is just not clear, you have to click multiple times"
- "It's very complicated, you have to go through 4-5 menus"
- "It seems like everything's just been buried, they had a theory or reason for the 4 tabs, but they don't make sense anymore"



Student Interviews & Observations



- "So that's the thing, I can't log-in to Blackboard directly, the only way I can log in is through mySCAD."
- "I don't like using Blackboard unless I absolutely have to for class, I use Google Drive for group projects."
- "The menu just doesn't make sense"
- "Even professors don't even know how to use it"



- "mySCAD is OK, it takes me a little bit of time to figure out what to do, there's a lot of information"
- "I can never remember which tab it's under, is it under My Info or Student Workspace?"
- "So there's an app and somebody forced me to have the app, I totally forgot I had it... then they asked me about it and I'm like oh God, not the app"



2.3 HEURISTIC EVALUATION



Heuristic Evaluation

Based on Nielson's 10 Usability Heuristics Modified an existing Heuristic Evaluation Checklist (Pierotti)

Key Features

- 1. Visibility of System Status
- 2. Match Between System & Real World
- 3. User control & Freedom
- 4. Consistency & Standards
- 5. Error Prevention
- 6. Recognition Rather than Recall
- 7. Flexibility & efficiency of use
- 8. Aesthetic and Minimalist Design
- 9. Help Users recognize, diagnose, and recover from errors
- 10. Help & Documentation

Heuristic Evaluation Tasks:

(Based on Primary Research)

MySCAD

- Logging into mySCAD
- Registering for classes (App vs Web)
- Payment

Blackboard

- Logging into Blackboard
- Uploading an Assignment
- Checking Syllabus & Grade



		Bb	MySCAD
1.	Visibility of System Status	X	✓
2.	Match Between System & Real World	×	×
3.	User control & Freedom	×	×
4.	Consistency & Standards	✓	×
5.	Error Prevention	X	×
6.	Recognition Rather than Recall	×	×
7.	Flexibility & efficiency of use	×	×
8.	Aesthetic and Minimalist Design	✓	✓
9.	Help Users recognize, diagnose, and recover from errors	X	X
10.	Help & Documentation	X	X







1. Visibility of System Status

mySCAD successfully shows headers, tabs, and link hover feedback. Blackboard however did not pass this evaluation, with this being the most significant issue with Blackboard, users are constantly asking "Where am I and what is going on?" (i.e. Syllabus loading with no indicator of the download and clicking My Courses directs to the home page rather than... My Courses)

3. User Control & Freedom

mySCAD has no customization features, BB has them however, during evaluation we could not figure out how to customize anything. The gear icon to customize, did not function as expected.



Course Work

STUDENT WORKSPACE

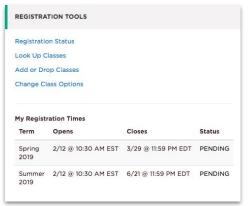
2. Match Between Real World and System

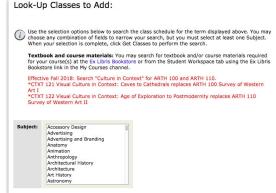
With both mySCAD and Blackboard there is not a natural sequence to what users need. Labeling is of links does not match what we refer to in the real world, especially in Blackboard.

Through our primary interviews with faculty, we learned there are several options as the course content manager for labeling. "Course Work" versus "Assessments" versus "Assignments". While these three choices have the same exact functionality from a faculty user perspective, the choice of label could affect the student usability.



Statement & Example 02

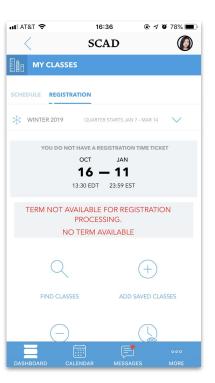




4. Consistency & Standards

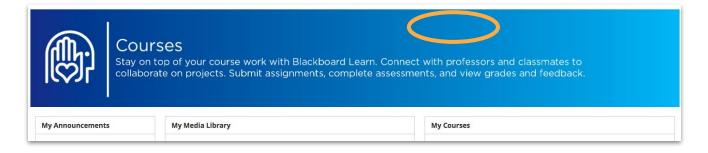
For mySCAD in particular, there is no consistency between the web and mobile versions of the site.

This however, was the only Heuristic that Blackboard passed, with menus aligned to the left and no usage of uppercase letters, as well as the app being very similar to the web.





STUDENT TOOLKIT	
Transportation Services	
Airport, Train and Bus Shuttles	



6. Recognition Rather than Recall

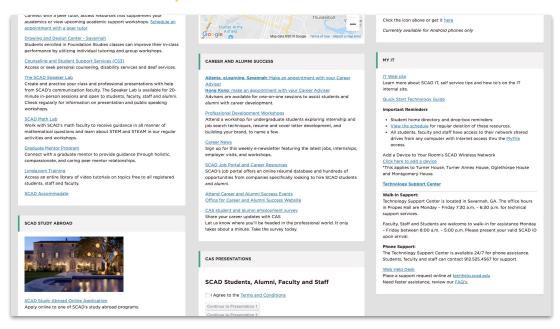
In Blackboard, there are complex menus with no spacial site map, there are also no obvious headings or icons leading the eye to any direction in particular other than the large banner on the homepage that offers no assistance on where to go next. While My Courses are actually listed all the way on the right.

In mySCAD some page components are grouped in logical ways, but there are others that are duplicated or placed in a seemingly random place to the user. Under toolkit with academic links such as to blackboard and course registration there is also transportation services?



Result

Statement & Example 02

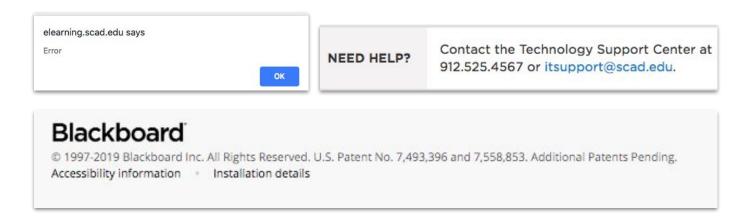




7. Flexibility & efficiency of use

Relating back to user control and freedom, both mySCAD and Blackboard have limited customization features to access the most used functions of the sites for both novices and expert users.





5 & 9. Error Prevention & Help Users Recognize, Diagnose & Recover

While doing the heuristic evaluation, no error messages were reached for mySCAD, but Blackboard's error message provided no context of what the error was or assistance on how to recover from the error.

10. Help & Documentation

The help system is available on the log-in screen of mySCAD or under the My Info tab at the bottom under My IT, while for BB unless you google Blackboard Help, there was no easily identifiable help section.

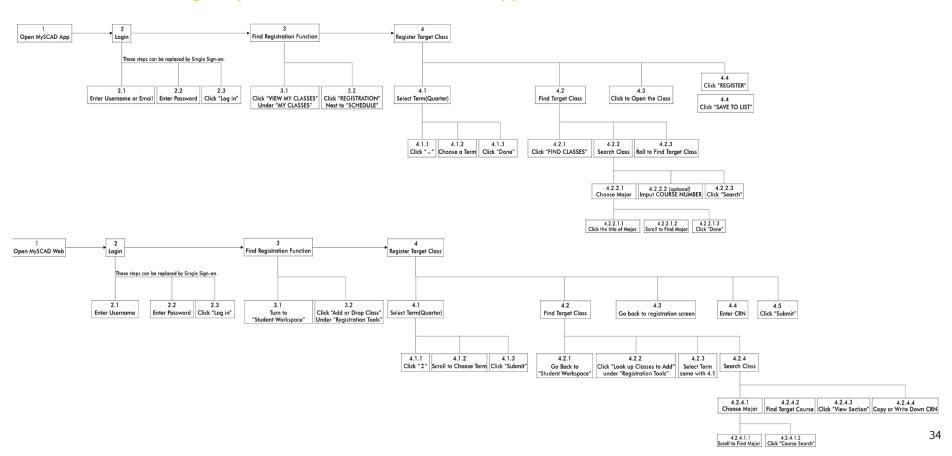


2.4 TASK ANALYSIS



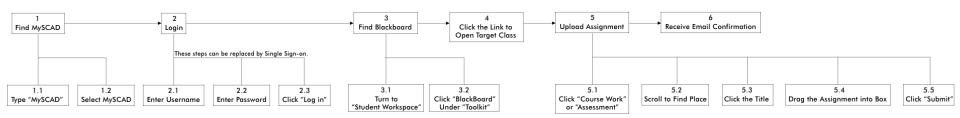
Task Analysis

Login MySCAD/Select Classes (Web & App)





Login Blackboard/Upload Assignment (Web)



The task analysis helped us truly understand the multitude of steps it takes to do the most important tasks for students, leading to user frustration.

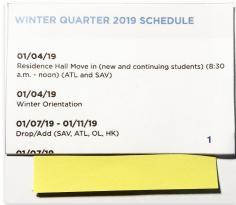


2.5 CARD SORTING



Cards Total: 67





User Instructions:

- Eliminate any labels that are unnecessary
- Group duplicate labels
- Rename any label that is confusing



Label in MySCAD & BB

LABELS IN MYSCAD
1. Academic Calendar
2. Help Contact
3. Email
4. Faculty Roster
5. Events
6. Announcements
7. Course Evaluations 8. Academic Profile
9. Grades
10. Advising
aSCAD ProAdvisor (DegreeWorks)
bSchedule Advising Appointment
c Graduate Thesis Information
11. Academic Resources
aEnglish Language Tutors
bWriter's Studio
cPeer Tutoring dDICllab/SCADIab
e Drawing & Design Center -
fCounseling and Student Support Services
g SCAD Speaker Lab h SCAD Math Lab
hSCAD Math Lab
iGraduate Mentor Program
jLynda.com Training kSCAD Accommodate
12. Study Abroad
13. Registration Tools
aRegistration Times
bLook Up Classes
cAdd/Drop Classes
dChange Class Options 14. Career and Alumni Success
aCareer Advisor
bCareer News
cSCAD Job Portal
dProfessional Development vvorkshops
eCAS Student and Alumni Employment Survey
15. Career and Alumni Success Presentations
 Prefilmed workshops from companies that visit camp
16. SCAD Graduation
17. Student Toolkit
aBlackboard
bCurrent Student Scholarships
cLynda.com Training
dMy Blog @ SCAD
eMy File (IFile Dropbox)
fMy Schedule by Day and Time
gMy Student Web Space hSavannah WebCheckout PIR - Patron Portal
 hSavannah WebCheckout PIR - Patron Portal (room and equipment reservations)
iClubs and Organizations
jAirport, Train and Bus Shuttles
kParking Services
ISCAD Savannah Bus Schedule
mTransportation Site
nBus Trackers
oJobs and Internships
pmySCAD Mobile App
L. milosus monio ribb

18. My	
	aIT Website
	bQuick Start Technology Guide
	eDeletion Schedule
	dmyFile
	eAdd a Device to your Room's SCAD Wireless
	Network fTechnology Support Center
	141 11 1 0 11 11 11
	hPhone Support Information
	iWeb Help Desk
19. Pe	rsonal Information
	aChange SCAD Password
	bManage mySCAD Security
	cUpdate Addresses and Phones
	d - I Indate Directory Profile
	eUpdate Emergency Information
	eUpdate Emergency Information fUpdate Preferred Name
	gName Change Information
	hSocial Security iMy Dependents
	iMy Dependents
	jParking Services
00 00	kBanner Self-Service Menu
	CAD Card Balance
21. My	SCAD Card
	aSelect Meal Plan upcoming Quarter
	cMore information about dining at SCAD dSCAD Cash overview
	eSCAD CArd and SCAD Cash Agreement
	fSGAD Cash Deposit form
	gFAFSA
	hGeorgia State Aid
	iAlternative Loans
	iFederal Direct Loans
22 Ei	nancial Aid Requirements
23. FII	aAid Overview for current year
	bMessage cHolds
	cHolds
	d. Financial Aid
	e. Status
	fProgress
24. St	udent Web space
25. St	udent Employment
	aAbout Student Employment bWeb Time Entry Overview
	bWeb Time Entry Overview
	cFrequently Asked Questions dHow do Lapply?
	dHow do Lapply?
	eSchedule Appointment Atlanta
	fSchedule Appointment Savannah
	g. My Pay Information h. My Tax Forms
	iJob History
	iJob History jTime Scheet
	kView SCAD Atlanta job postings
	kView SCAD Atlanta job postings IView SCAD Savannah job postings / Student Account
26. My	Student Account
	aMy Student Account Online
	bMake Appointment for Financial Aid
	cDirect Deposit for Student Refunds
	dTax Notification
	eElectronic 1098T
	fInternational Student Tax Information
	gPayment Options
	hStudent Account Website

27. Residence Life and Housing	
aResidence Life and Housing Websit	te
 Add a device to your room's SCAD 	wireless netv
cMeal Plan Information	
dSCAD Atlanta Housing eSCAD Savannah Housing	
e. SCAD Savannah Housing f. SCAD Hong Kong Housing	
gResidence Hall Maintenance Reque	
hLicense Agreement Cancellation Re	auest
iMicrofridge Rental Savannah	1000
Microfridge Dental Atlanta	
kApply of Review My Housing	
IResidence Life Important Dates	
mRoom Change Request 28. SCAD Fitness	
29. Forms	
30. Department Directory	
31. SCAD Elearning	
aAbout eLearning bE-Community	
cNeed Help	
dVirtual Lecture Hall	
32. Museum of Art	
aCurrent Exhibitions and Programs	
bContact Us	
 cSigh Up for Monthly Newsletter dFollow us (instagram, twitter, facebox 	-cha
33. Handbooks	JOK)
aStudent Handbook 2018-19	
bStudent Guide 2018-19 (Savannah)	•
cGraduate Student Guide 2018-2019	(Savannah)
34. Student Policies	
aAcademic Policies	
bADRPA Arbitration Procedures for s	tudents
 Code of Student Conduct 	
dPrivacy Policy eTechnology Policy	
eTechnology Policy 35. Quick Reference	
a2017-18 Fact Book	
bCalls for Entry	
 cBuilding Hours - Savannah 	
dClass Schedule Search	
eEmergency Preparedness	
fFacilities Map	
36. Academic Resources aEnglish Language Tutors	
bWriter's Studio	
cPeer Tutoring	
dDIGIlab/SCADIab	
e Drawing & Design Center	
 fCounseling and Student Support Se 	ervices
gSCAD Speaker Lab	
h. SCAD Math Lab i. Graduate Mentor Program	
iSCAD Accommodate	
37. SCAD Deals	
aAT&T Discount	
bAutodesk Education Community (30	+ Free Softw
Downloads)	
 SCAD Online Apple Store-US 	
dJourney Ed Software	
eMSDN Software Center	
f. B&H Photography Discounts g. Microsoft Office 365 Download	
hAdobe Software Deal	
iToon Boom	
38. Library	

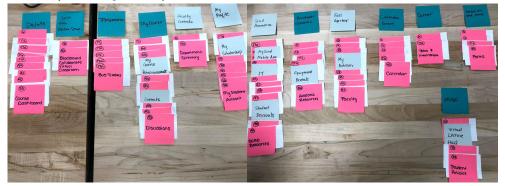
BLACKBOARD LABELING

- 39. My Courses 40. My Communities
- 41. SCAD Resources
- 42. My Grades 43. Calendar
- 44. Posts
- 45. My Announcements
- 46. Course Syllabus
- 47. Faculty
- 48. Students
- 49. Course Work
- 50. Blackboard Collaborate Virtual Classroom
- 51. Blogs
- 52. Discussions
- 53. Course Dashboard

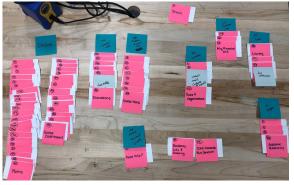


Participants

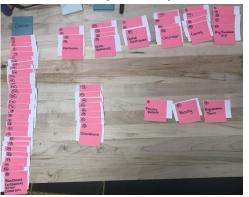
#1 Graphic Design, MA 1 year at SCAD



#2 Service Design, MFA, 5 years at SCAD



#3 Service Design, MFA, 5 years at SCAD #5



5 Design Management, MA, 2 years at SCAD



#5 Luxury & Fashion Management, MFA, 2.5 years at SCAD





"Do we have this?"

"I don't want to see it all the time."

"Two Grades?"
"Two Announcement?"

"I've never used it."

"I'm not an online student."
"I'm not in film major."
"I don't use it any more, but maybe someone needs it."

"Why is it in MySCAD?"
"When I use MySCAD, I just want to get the information related with my study."

Affinitizing



- A Repeated Functions
- B Useless Functions
- C Showed at Wrong Time
- Showed in Wrong Place
- E Showed to Wrong User
- F Hard to Use
- G Hard to Find
- H Rarely Used



Categories

A

Repeated Functions

- 9 Grade & My Grade
- 17f My Schedule by Day and Time & 43 Calendar
- 36 Academic Resource Network
- 17c Lynda.com Training & 31 SCAD eLearning

B

Useless Functions

- 17d my Blog @SCAD
- 17g My Student Webspace
- 24 Student Webspace
- 40 My Community
- 41 SCAD Resources
- 50 Blackboard Collaborate Virtual Classroom
- 52 Blogs
- 53 Course Dashboard

C

Shown at Wrong Time

7 Course Evaluation

D

Shown in Wrong Place

- 5 Events
- 6 Announcements
- 12 Study Abroad
- 16 SCAD Graduation
- 17i Clubs & Organizations
- 17j Airport, Train & Bus Shuttles
- 17k Parking Services
- 17l SCAD Savannah Bus Schedule
- 17m Transportation Site
- 17n Bus Trackers
- 17p MySCAD Mobile APP
- 32 SCAD Museum of Art
- 33 Handbooks
- 34 Student Policies
- 37 SCAD Deals

E

Shown to Wrong User

- 17b Current Student Scholarships
- 17h Savannah Webcheckout PIR Patron Portal
- 17o Job & Internships
- 20 SCAD Card Balance
- 21 SCAD Card
- 23 Student Employment
- 27 Residence Life & Housing
- 31 SCAD eLearning

F

Hard to Use

- 17a Blackboard
- 17e My File
- 45 My Announcement



Hard to Find

- 14 Career & Alumni Success
- 18 My IT
- 43 Calendar

Н

Rarely Used

- 23 Financial Aid Requirement
- 28 SCAD Fitness
- 29 Forms
- 30 Department Directory
- 43 Calendar



Design Concept

	^		Solutions:
	A	Repeated Functions	
	В	Useless Functions	DELETE
	C	Shown at Wrong Time	Shown at specific time as a notification
	D	Shown in Wrong Place	Move to Footer as Link Box. Detailed information can be moved into official website.
Tested in Prototype	Ε	Shown to Wrong User	Selectively display based on student information or can be customized by users.
	F	Hard to Use	Redesign the whole function module
	G	Hard to Find	Raise the priority or relabel
	Н	Rarely Used	Decrease the priority, reduce active area or move to footer





10 Advising - My Adviser

17b Current Student Scholarships - My Scholarship

17h Savannah Webcheckout PIR (Patron Portal) - Equipment Rentals

18 My IT - IT

37 Student Deals - Student Discount

45 My Announcement - Course Announcement

48 Students - Contacts

#2

15 Career & Alumni Success Presentations - Virtual Lecture Hall
 37 Student Deals - Free Softwares OR Software Deals
 48 Students - Classmates

#4

11 Academic Resource Network - Tutoring

14 Career & Alumni Success - Career Advising

15 Career & Alumni Success Presentations - Virtual Presentation

17b Current Student Scholarships - Scholarship

17p MySCAD Mobile APP - APP

18 My IT - Help or IT Support

26 My Student Account - **Payment**

37 Student Deals - Free Softwares OR Software Deals

45 My Announcement - **Announcement**

42 My Grades - Grade

46 Course Syllabus - **Syllabus**

47 Faculty - Professor

48 Students - Classmate

49 Coursework - Assignment

Simple and precise labels created from the feedback in our Card Sorting

Labels Total: 33

- 1 Academic Calendar
- 2 Need Help?
- 3 Email
- 4 Faculty Directory
- 8 Academic Profile
- 10 Graduate Advising
- 11 Tutoring
- 13 Registration Tools
- 14 Career Advising
- 15 Virtual Presentations
- 17a Blackboard
- 17b Scholarships
- 17e My File
- 17h Equipment Rentals
- 17o Job & Internships
- 18 IT Support
- 19 My Personal Information
- 21 SCAD Card

- 22 My Financial Aid
- 26 Payment
- 27 Housing
- 28 SCAD Fitness
- 29 Forms
- 30 Department Directory
- 37 Free & Discounted Software
- 38 Library
- 39 My Courses
- 42 My Grades
- 43 Course Calendar
- 45 Course Announcement
- 46 Course Syllabus
- 47 Professor
- 48 Classmate
- 49 Assignment
- 52 Discussions

Ideation & Problem Statement

Part 3





Design Opportunity

Through our data affinitization and clustering, we identified several themes related to the usability of Blackboard and mySCAD.

- Dysfunction
- Unclear Labeling
- Inconsistency
 - with Real World Inconsistency
 - between Mobile & Website
- Information Overload
- Confusing Navigation
- Low Flexibility
- Graphic User Interface
- Unorganized Hierarchy
- Positive Functions
- Emotion
- Rating
- Suggestions

Of those themes, opportunity spaces arise under:

- Hierarchy
- Navigation
- Minimalist Design for removing information overload
- Consistency
- Labelling



Previous Problem Statement

Blackboard has clear usability issues.

How can we redesign the LMS to:

- 1. Have easier usability
- 2. Have easier information accessibility
- 3. Have intuitive functionality

Our Target Users:

- 1. Students
- 2. Faculty





NEW Problem Statement

Blackboard is an issue, but the mySCAD portal is also an issue.

Users cannot access Blackboard unless they go through mySCAD, so a redesign would possibly need to involve both systems as far as accessibility and prioritizing what users need.

Our Target Users:

- Students
- 2. Faculty



4.1 How Might We

How might we **IMPROVE NAVIGATION** by

- reorganizing menu (eg.having expanding menu tabs)?
- reorganizing homepage (MySCAD & BB)?
- improving search functions in BB?
- enhancing flexibility (eg. customizable quick links)?
- emphasize help function?

How might we **AVOID INFO OVERLOAD** by

- prioritizing function hierarchy?
- reorganizing homepage (MySCAD & BB)?
- redesigning a collapsable menu?
- reorganizing functions?
- emphasize help function?

How might we **IMPROVE HIERARCHY** by

- reorganizing menu?
- limiting user actions?
- reorganizing homepage (MySCAD & BB)?

How might we **IMPROVE CONSISTENCY** by

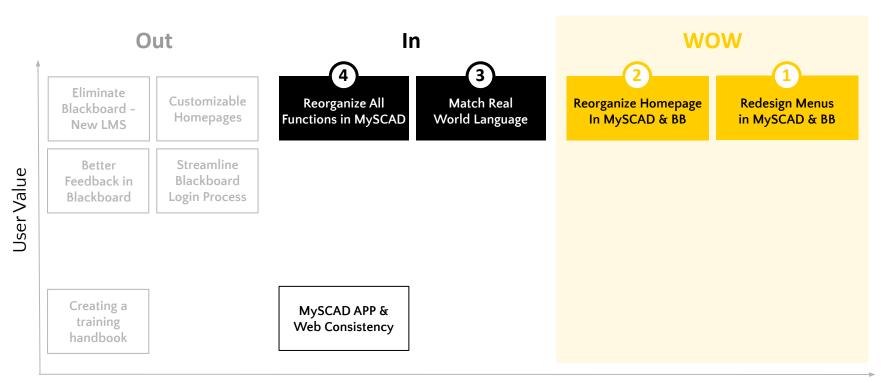
- keeping same hierarchy and process in APP & Web?
- changing BB UI to show same things?
- matching real world language?
- providing better user feedbacks?

How might we **IMPROVE LABELLING** by

matching real world language?



4.2 Prioritization of Concepts



University Value (difficulties)



Updated Concept

Redesign Menus in MySCAD & BB

Reorganize Homepage In MySCAD & BB Streamline and Centralize
mySCAD and Blackboard
functions in fully restructured
mySCAD Portal

PROTOTYPING

4.1 Low Fidelity 4.2 Medium Fidelity 4.3 High Fidelity Web 4.4 High Fidelity Mobile





4.1 LOW FIDELITY PROTOTYPE

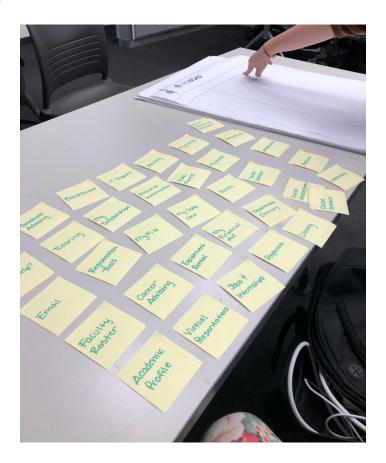




Participatory Wireframe

User Instructions:

- Place the labels where it makes the most sense for you in top or left navigation
- Prioritize the labels that you want to have access to frequently
- Relabel or cluster labels you use together





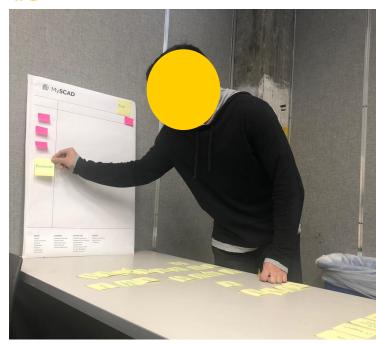
Participatory Wireframe

#'

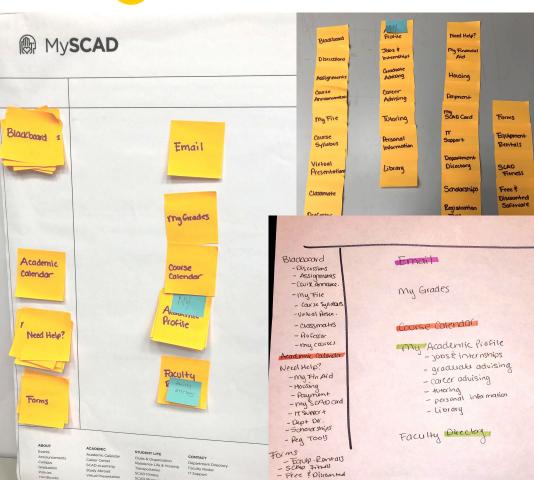
#2



#3



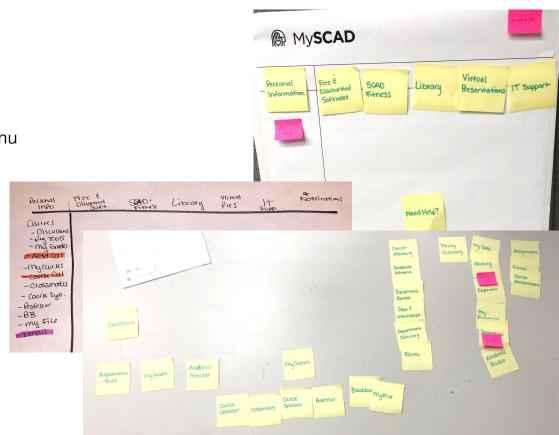
Results #1



- Academic Information Left Menu
- No Navigation System
- Email, Grades, Calendar, Academic
 Profile cluster on first page

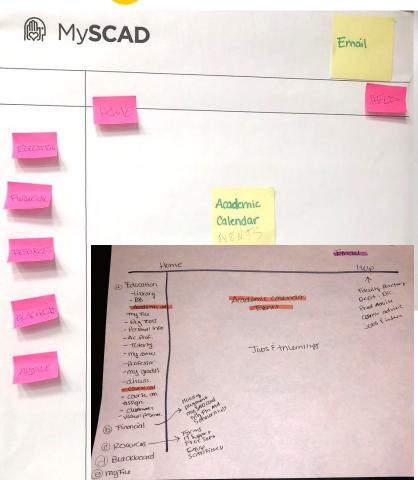
Results #2

- Notifications
- Global Navigation
- No Local Navigation
- Academic on first page and left menu





Results #3







Global Navigation

3/5

Participants chose to have a horizontal top global navigation system



Similar Labels

5/5

Participants clustered similar functions for Academics, Resources, and Financial

Local Navigation

5/5

Participants chose to have a vertical local navigation system

Notifications

5/5

Participants indicated wanting notifications somehow



Affinitization

Academic

- Academic Calendar
- Course Calendar
- Registration Tools
- Academic Profile
- Graduate Advising
- My File
- Career Advising
- My Courses
- My Grades
- Course Announcements
- Course Syllabus
- Professor
- Classmate
- ASsignment
- Discussions

Resources

- SCAD Fitness
- Equipment Rentals
- Virtual Presentations
- Forms
- Faculty Directory
- Department Directory
- Tutoring
- Jobs & Internships

Financial

- My Financial Aid
- Payment
- Housing
- mySCAD Card
- My Personal Information
- Scholarships

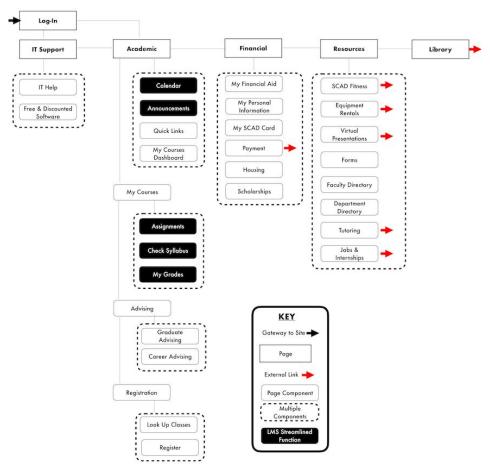
IT Support

- IT Help
- Free & Discounted Softwares

Library

Email

Updated Higher Level Blueprint





4.2 MEDIUM FIDELITY PROTOTYPE

Challenges

Staying consistent with the current mental model

 Results showed users grouped Academic functions to the left menu similar to that existing in Blackboard

Centralizing the right information at the right time

- All users identified notifications, email, myFile with academic, and calendar as top functions they would want accessible at all times

Minimizing clicks for the top tasks identified in our primary research

- We have already eliminated the first task "Going to Blackboard"
- Checking Grades, Uploading Assignments, Checking Syllabus, Registering for Courses, and Payment



Solutions To Test

1. Calendar

Centralized calendar combining Academic, Course, and Events

2. Quick Links

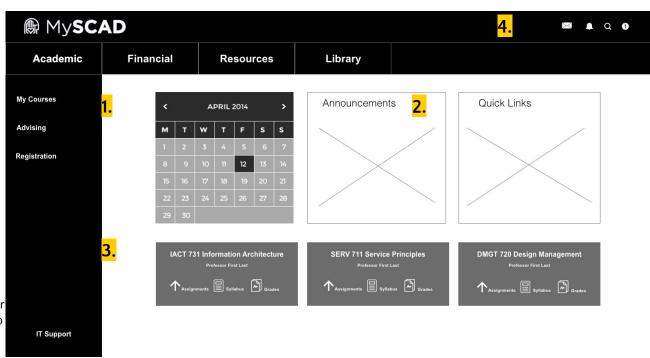
Customizable menu for easy access from homepage to functions in other menu tabs

3. Course at a Glance

The top tasks for each course on the homepage, opening expands to a course dashboard specific for each course and customizable by faculty

4. Always on Top

Email, Notifications, Search, and Help or IT Support always accessible on the top right corner through icons





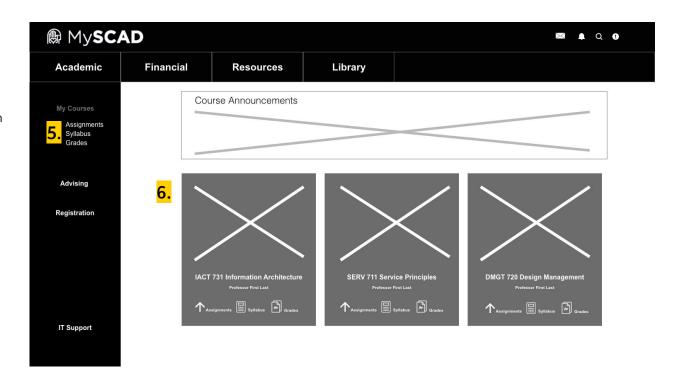
Solutions To Test

5. Local Navigation

How would users want this information displayed? We know from our first prototype users want this information to be Academic or Course related in nature, but we want to test the idea of this left menu changing as you select Financial or Resources

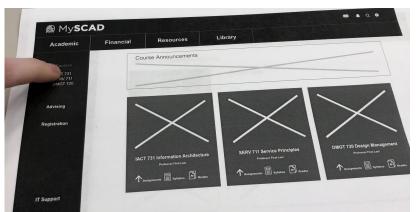
6. My Courses Dashboard

Testing different dashboard styles, would users like the calendar to carry over into this page? Or would it make sense to have each course have their own individual calendar

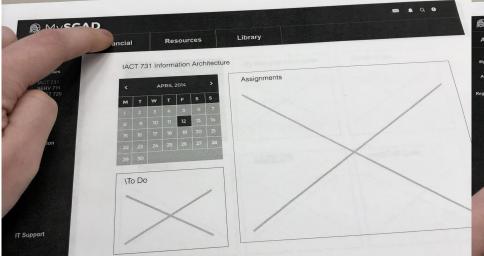


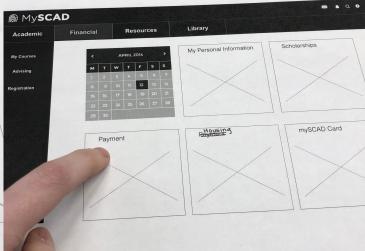


Wizard of Oz



- Are any features missing?
- 2. Does anything seem unnecessary or out of place?
- 3. Is there anything distracting? (i.e. icons)
- 4. Would you customize your homepage if given the option?







Enjoyed

- + Clean, minimal
- + Calendar on Homepage
- + More icons would be useful
- + Email, Search, & Notifications
- + Would utilize customization
- + Both Navigation Systems

Missing

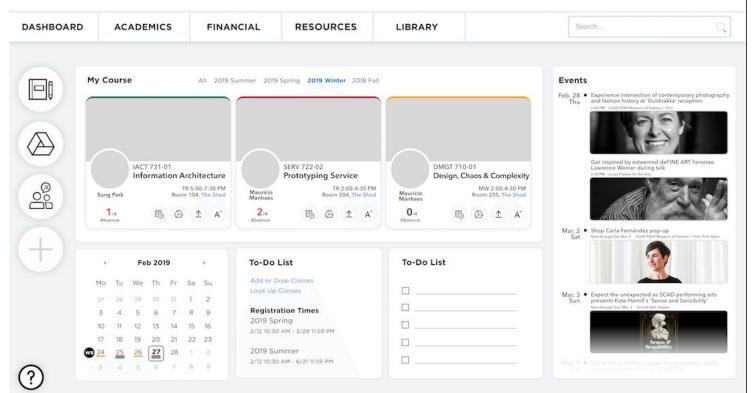
- -Drop down menus
- -Black menus too similar to Blackboard
- -Mobile consistency



Desktop Website

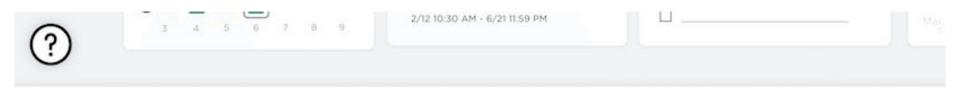








Desktop Website



SCAD The University for Creative Careers contact@scad.edu 800.869.7223 Additional contacts Request information

ABOUT Events Campus Graduation Policies Handbooks SCAD APPs

ACADEMIC Academic Calendar Career Center SCAD eLearning Study Abroad Virtual Presentation

STUDENT LIFE Clubs & Organization Residence Life & Housing Transportation & Parking SCAD Fitness SCAD Museum of Art Ex Libris Bookstore Student Discount

CONTACT Department Directory Faculty Roster IT Support

Introduced a site map at the bottom of the site

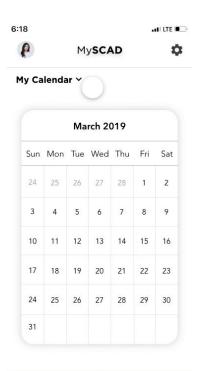


Mobile Application

Moving into High Fidelity Feedback

- Stay Minimal
- Continue consistency with Web GUI
- Customizable Calendar
- Web Vertical row of classes can't have a 4th class (underclassmen)
- Web Registration consistent with mobile





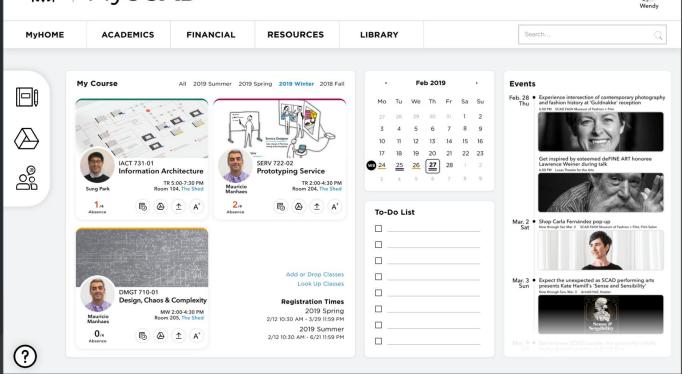




2.3 HIGH FIDELITY PROTOTYPES





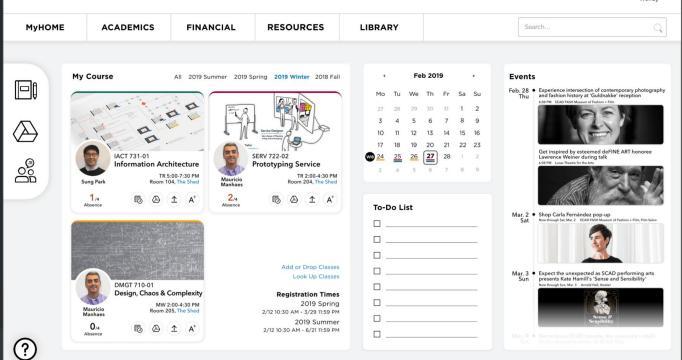


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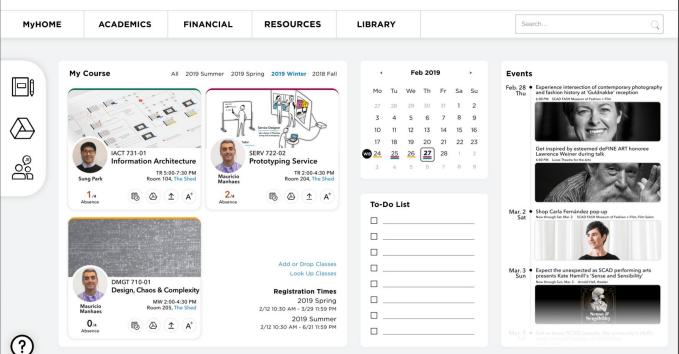




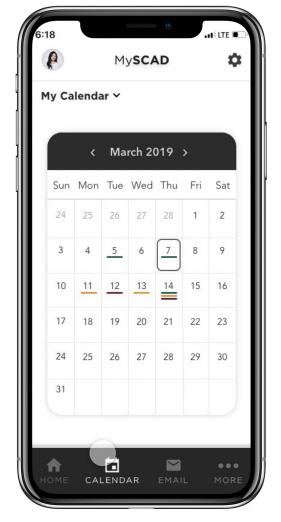


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USABILITY TESTING

User Interface Satisfaction



Questionnaire for User Interface Satisfaction(QUIS) OVERALL REACTION TO THE SOFTWARE

7.5/9 - Easy to Use

7.5/9 - Flexible

7/9 - Terminology related to task

8/9 - Easy learning to operate system

7/9 - Remembering names and commands

OVERALL REACTION TO THE SOFTWARE	0	1	2	3	4	5	6	7	8	9		NA
1. D terrible	0	0	0	0	0	0	0	0	0	0	wonderful	0
2. D difficul	0	0	0	0	0	0	0	0	0	0	easy	0
3. D frustrating	0	0	0	0	0	0	0	0	0	0	satisfying	0
4. D inadequate power	0	0	0	0	0	0	0	0	0	0	adequate power	0
5. D dul	0	0	0	0	0	0	0	0	0	0	stimulating	0
6. D	0	0	0	0	0	0	0	0	0	0	flexible	0
SCREEN	0	1	2	3	4	5	6	7	8	9		NA
7. Reading characters on the screen D	0	0	0	0	0	0	0	0	0	0	easy	0
8. Highlighting simplifies task D not at al	0	0	0	0	0	0	0	0	0	0	very much	0
9. Organization of information D confusing	0	0	0	0	0	0	0	0	0	0	very clear	0
10. Sequence of screens confusing	0	0	0	0	0	0	0	0	0	0	very clear	0
TERMINOLOGY AND SYSTEM INFORMATION	0	1	2	3	4	5	6	7	8	9		NA
 Use of terms throughout system inconsisten 	t 🗇	0	0	0	0	0	0	0	0	0	consistent	0
12. Terminology related to task □ neve	0	0	0	0	0	0	0	0	0	0	always	0
 Position of messages on screen inconsisten 	0	0	0	0	0	0	0	0	0	0	consistent	0
14. Prompts for input □ confusing	0	0	0	0	0	0	0	0	0	0	clear	0
 Computer informs about its progress □ neve 	0	0	0	0	0	0	0	0	0	0	always	0
16. Error messages unhelpfu unhelpfu	0	0	0	0	0	0	0	0	0	0	helpful	0
LEARNING	0	1	2	3	4	5	6	7	8	9		NA
 Learning to operate the system 	0	0	0	0	0	0	0	0	0	0	easy	0
18. Exploring new features by trial and error D difficul	0	0	0	0	0	0	0	0	0	0	easy	0
19. Remembering names and use of commands difficul difficul	0	0	0	0	0	0	0	0	0	0	easy	0
 Performing tasks is straightforward	0	0	0	0	0	0	0	0	0	0	always	0
21. Help messages on the screen unhelpfu unhelpfu	0	0	0	0	0	0	0	0	0	0	helpful	0
22. Supplemental reference materials confusing	0	0	0	0	0	0	0	0	0	0	clear	0
SYSTEM CAPABILITIES	0	1	2	3	4	5	6	7	8	9		NA
23. System speed too slov	0	0	0	0	0	0	0	0	0	0	fast enough	0
 System reliability unreliable unreliable unreliable unreliable unreliable unreliable unreliable unreli	0	0	0	0	0	0	0	0	0	0	reliable	0
25. System tends to be noisy	0	0	0	0	0	0	0	0	0	0	quiet	0
26. Correcting your mistakes difficul difficul	0	0	0	0	0	0	0	0	0	0	easy	0
27. Designed for all levels of users neve	0	0	0	0	0	0	0	0	0	0	always	0
	0	1	2	3	4	5	6	7	8	9		NA

1.	
2.	
3	

List the most positive aspect(s):

ī
-



Questionnaire for User Interface Satisfaction(QUIS) OVERALL REACTION TO THE SOFTWARE

"The app looks a lot cleaner"

"Customizability makes a lot of sense"

"I may not add things manually to calendar, maybe an add all calendar option"

OVERALL REACTION TO THE SOFTWARE		0	1	2	3	4	5	6	7	8	9		NA
1. 🔽	terrible	0	0	0	0	0	0	0	0	0	0	wonderful	0
2. 📮	difficult	0	0	0	0	0	0	0	0	0	0	easy	0
3. 🗖	frustrating	0	0	0	0	0	0	0	0	0	0	satisfying	0
4. 🔽	inadequate power	0	0	0	0	0	0	0	0	0	0	adequate power	0
5. 🗖	dull	0	0	0	0	0	0	0	0	0	0	stimulating	0
6. □	rigid	0	0	0	0	0	0	0	0	0	0	flexible	0
SCREEN		0	1	2	3	4	5	6	7	8	9		NA
7. Reading characters on the screen 📮	hard	0	0	0	0	0	0	0	0	0	0	easy	0
8. Highlighting simplifies task D	not at all	0	0	0		0	0	0	0	0	0	very much	0
Organization of information 	confusing	0	0	0	0	0	0	0	0	0	0	very clear	0
 Sequence of screens 	confusing	0	0	0	0	0	0	0	0	0	0	very clear	0
TERMINOLOGY AND SYSTEM INFORMATION		0	1	2	3	4	5	6	7	8	9		NA
 Use of terms throughout system 	inconsistent	0	0	0	0	0	0	0	0	0	0	consistent	0
 Terminology related to task 	never	0	0	0	0	0	0	0	0	0	0	always	0
 Position of messages on screen 	inconsistent	0	0	0	0	0	0	0	0	0	0	consistent	0
 Prompts for input 	confusing	0	0	0	0	0	0	0	0	0	0	clear	0
 Computer informs about its progress 	never	0	0	0	0	0	0	0	0	0	0	always	0
 Error messages 	unhelpful	0	0	0	0	0	0	0	0	0	0	helpful	0
LEARNING		0	1	2	3	4	5	6	7	8	9		NA
 Learning to operate the system 	difficult	0	0	0	0	0	0	0	0	0	0	easy	0
 Exploring new features by trial and error 	difficult	0	0	0	0	0	0	0	0	0	0	easy	0
 Remembering names and use of commands 	difficult	0	0	0	0	0	0	0	0	0	0	easy	0
 Performing tasks is straightforward 	never	0	0	0	0	0	0	0	0	0	0	always	0
 Help messages on the screen 	unhelpful	0	0	0	0	0	0	0	0	0	0	helpful	0
 Supplemental reference materials 	confusing	0	0	0	0	0	0	0	0	0	0	clear	0
SYSTEM CAPABILITIES		0	1	2	3	4	5	6	7	8	9		NA
23. System speed 🔽	too slow	0	0	0	0	0	0	0	0	0	0	fast enough	0
24. System reliability D	unreliable	0	0	0	0	0	0	0	0	0	0	reliable	0
25. System tends to be 🗗	noisy	0	0	0	0	0	0	0	0	0	0	quiet	0
26. Correcting your mistakes D	difficult	0	0	0	0	0	0	0	0	0	0	easy	0
 Designed for all levels of users 	never	0	0	0	0	0	0	0	0	0	0	always	0
		0	1	2	3	4	5	6	7	8	9		NA

List t	he	most	negative	aspect(s	J
--------	----	------	----------	----------	---

1.			
2.			
3.			

List the most positive aspect(s):

1.	
2.	
3.	

VISION MOVIE

The Final Product

Part 6

Introducing a newly redesigned



Appendix

Our raw data and analysis

Part 7

1. Visibility of System Status

- 1.1. Does every display begin with a title or header that describes screen contents?
- 1.2. Is there a consistent icon design scheme and stylistic treatment across the patern?
- 1.3. Do menu instructions, prompts, and error messages appear in the same place(s) on each menu?
- 1.4. Is there some form of system feedback for every operator action?
- 1.5. Is there visual feedback in menus or dialog boxes about which choose the cursor is on now?
- 1.6. Is the current status of an icon clearly indicated?
- 1.7. If there are observable delays (greater than 15 seconds) in the systems response time, is the user kept informed of the systems progress? When downloading syllabus, system does not tell you it's downloading, takes much longer than 15 seconds
- 1.8. Is the menu-naming terminology consistent with the user's task domain?
- 1.9. Does the system provide visibility: by looking can the user tell the state of the system and the alternatives for action?
- 1.10. If users must navigate between multiple screens, does the system use context labels, menu maps, and place markers as navigational aids?
- 2. Match Between Real World and System
 - 2.1. Are icons concrete and familiar? Folder Icon, opens a pop out menu? Pressing home just collapses menu?
 - 2.2. Are menu choices ordered in the most logical way, given the user, the item names, and the task variables?
 - 2.3. If there is a natural sequence to menu choices, has it been used?
 - 2.4. When prompts imply a necessary action, are the words in the message consistent with that action?
 - 2.5. On data entry screens, are tasks described in terminology familiar to users?
 - 2.6. Do menu choices fit logically into categories that have readily understood meanings?
 - 2.7. Does the command language employ user jargon and avoid computer jargon? Are command names specific rather than general?
- 3 User Control and Freedom
 - 3.1. When a user's task is complete, does the system wait for a signal from the user before processing?
 - 3.2. Is there an "undo" function at the level of a single action, data entry, and a complete group of actions?
 - 3.3. Can users cancel out of operations in progress
 - 3.4. Can users reduce data entry time by copying and modifying existing data?
 - 3.5. If menu lists are long (more than 7 items), can users select an item by moving the cursor or by typing a mnemonic code?

- 3.6. Can users easily reverse their actions?
- 3.7. If the system allows user to reverse their actions, is there a retracing mechanism to allow for multiple undos?
- 3.8. Can users set their own system, session, file, and screen defaults? Technically, yes but I could not figure out how to
- 4. Consistency & Standards
 - 4.1. Has a heavy use of all uppercase letters on a screen been avoided?
 - 4.2. Are there salient visual cures to identify the active window?
 - 4.3. Are vertical & horizontal scrolling possible in each wisndow?
 - 4.4. Does the menu structure match the task structure?
 - 4.5. Are menu choose lists presented vertically?
 - 6. Are menu titles either centered or left-justified?
 - 4.7. Is the most important information placed at the beginning of the prompt
 - 4.8. Are user actions named consistently across all prompts in the system
- 5. Help Users Recognize, Diagnose, and Recover from Errors
 - 5.1. Is sound used to signal an error?
 - 5.2. Are prompts brief and unambiguous? Never saw an error message
 - 5.3. Do messages place users in control of the system?
 - 5.4. If an error is detected in a data entry field, does the system place the cursor in that field or highlight the error?
 - 5.5. Do error messages inform the user of the error's severity? Never saw an error message
 - 5.6. Do error messages suggest the cause of the problem? Never saw an error message
 - 5.7. Do error messages indicate what action user needs to take to correct the error?Never saw an error message
- 6. Error Prevention
 - 6.1. Are menu choices logical, distinctive, and mutually exclusive?
 - 6.2. Are the function keys that cause the most serious consequences located far away from low-consequence and high use keys?
 - 6.3. Does the system prevent users from making errors whenever possible?
- Recognition Rather than Recall
 - 7.1. Have prompts been formatted using white space, justification, and visual cues for easy scanning?
 - 7.2. Do text areas have "breathing space" around them?
 - 7.3. Is white space used to create symmetry and lead the eye in the appropriate direction? Symmetry yes, but It's just boxes not leading the eye anywhere in particular.

- 7.4. Have items been grouped into logical zones, and have headings been used to distinguish between zones?
- 7.5. Are borders used to identify meaning groups?
- 7.6. If the system has many menu levels or complex menu levels, do users have access to an on-line spatial menu map?
- 7.7. Are there salient visual cues to identify the active window?

8. Flexibility & Ease of Use

- 8.1. Can users define their own synonyms for commands?
- 8.2. Do expert users have the option of entering multiple commands in a single string?
- 8.3. Does the system provide function keys for high-frequency commands?
- 8.4. Can expert users bypass nested dialog boxes?

9. Aesthetic & Minimalist Design

- 9.1. Is only and all information essential to decision making displayed on the screen?
- 9.2. Are meaningful groups of items separated by white space?
- 9.3. Are field labels, brief, familiar, and descriptive?
- 9.4. Are menu titles brief, yet long enough to communicate?
- 9.5. Are there pop-up or pull down menus with data entry fields that have many, but well-defined, entry options?

10. Help & Documentation

- 10.1. Are on-line instructions visually distinct?
- 0.2. Do the instructions follow the sequence of user actions?
- 10.3. If menu choices are ambiguous, does the system provide additional explanatory information when an item is selected?
- 10.4. Are data entry screens and dialogue boxes supported by navigation and completion instructions?
- 10.5. Are there memory aids for commands, either through on-line quick reference or prompting?
- 10.6. Is the help function visible; for example labeled HELP or a special menu?
- 10.7. Navigation is the information easy to find?
- B. Presentation is the visual layout well designed?
- 10.9. Conversation is the information accurate, complete, and understandable

Our checklist:

N/A Bad

Good

Blackboard: https://drive.google.com/open?id=1qDgvnQRZAQeQzFqAI_zEGIGInOU1kM7PT27fc-JWhFO

MySCAD: https://docs.google.com/document/d/1TykusMN6lvtgCZMhz_f2V5DxZd_TlZUnjjQmA3I9xl4/edit

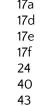


Deleted Cards

#1

Total: 9

17a 17d 17e



53



#3

Total: 32

17h 21 43 23 50 17k 24 17 25 17m -17n 28 17o -34 36 17p 37 20



Total: 36

28 45 30 50 31 51 17m 53 17o 32 33

34 17d 40 20 17f



#5

Total: 28 17h 34 36 40 50 17a 17m -17b 17n 51 53 17c 23 17d 24

31

17g



#5

Total: 20

18 24 17d 30 33 34 17h 37 17m -17n -51 17p -

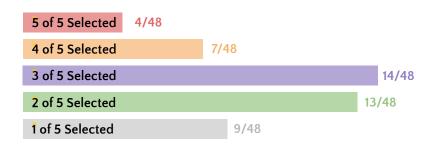


Deleted Cards

/67 are deleted by **5** participants.

No.	#1	#2	#3	#4	#5
1	6	5	5	5	6
2	17a	6	6	6	14
3	17d	7	7	7	17d
4	17e	9	9	9	17f
5	17f	12	12	12	17g
6	24	14	14	17a	17h
7	40	16	17b	17b	17j
8	43	17a	17d	17c	17m
9	53	17d	17f	17d	17n
10		17f	17g	17g	17p
11		17g	17h	17h	18
12		17h	17j	17i	24
13		17j	17k	17j	30
14		17k	17l	17k	33
15		17m	17m	17l	34
16		17o	17n	17m	37
17		17p	17o	17n	40
18		18	17p	23	44
19		20	18	24	51
20		21	20	31	53
21		24	21	34	
22		28	23	36	
23		29	24	40	
24		30	25	41	
25		31	27	44	
26		32	28	50	
27		33	34	51	
28		34	36	53	
29		40	37		
30		41	40		
31		43	43		
32		44	50		
33		45			
34		50			
35		51			
36		53			

No.	5/5	4/5	3/5	2/5	1/5
1	6	17f	5	17b	16
2	17d	17g	7	17l	17c
3	24	17h	9	17o	17e
4	40	17j	12	20	17i
5		17m	14	21	25
6		34	17a	23	27
7		53	17k	28	29
8			17n	30	32
9			1 7 p	31	45
10			18	33	
11			43	36	
12			44	37	
13			50	41	
14			51		





Thanks!

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